

Appl. No. 10/603,552  
Atty. Docket No. 2003B064  
Amend. dated February 9, 2006  
Reply to Office Action of November 9, 2005

### REMARKS

#### I. Status and Request for Reconsideration

Reconsideration of this application is requested. The claims submitted for reconsideration are claims 1-8, 10-14, 29-36, 38-42 and 56-57.

Independent claims 1, and 29 have been amended to include additional steps. These steps are consistent with the written description of the invention at paragraphs 0074 and 0078.

Claims 56 and 57 are newly added. The basis for these claims comes from the written description of the invention at paragraph 0076. Accordingly, no new matter is introduced.

#### II. Claim Rejections - 35 U.S.C. § 103

All claims stand rejected under 35 U.S.C. § 103(a) as being obvious over U.S. Patent 6,559,248 (Hendriksen) in view of U.S. Patent No. 6,403,854 (Miller). This rejection is traversed and reconsideration requested.

Applicants note that this application and Hendriksen were, at the time the invention of this application was made, owned by ExxonMobil Chemical Patents, Inc. Therefore, Hendriksen is disqualified from being used in a rejection under 35 U.S.C. § 103(a) against the claims of this application. See 35 U.S.C. § 103(c)(1) and MPEP 706.02(l)(2).

This invention is to a process for producing olefin(s) from oxygenates that is more effective than previously known processes at removing carbon dioxide from the system. The process includes quenching the effluent stream from an oxygenates to olefins reaction system with a quench medium at a pH above 7 to assist in removing water and carbon dioxide from the effluent stream. The stream containing the removed water and carbon dioxide is then lowered in pH to form a degasified quench bottoms stream, and oxygenate hydrocarbons are then fractionated from the degasified quench bottoms stream. The result of the overall process is that an olefin product stream is produced with a reduced amount of carbon dioxide and water, the carbon dioxide is degasified from the system and a substantial portion of any oxygenate hydrocarbon remaining in the water is removed. The oxygenate hydrocarbon can then be disposed or recycled as feed, and the remaining water stream can be sent to waste treatment at a reduced biological load.

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Miller is directed to a process for the recovering heat and removing impurities from a reactor effluent stream from a fluidized exothermic reaction zone for the conversion of oxygenates into light olefins. The process uses a two-stage quench tower system. In the first quench tower, water is removed from the reactor effluent stream and heat is recovered from the reactor effluent to at least partially vaporize the feedstream by indirect heat exchange. A drag stream is withdrawn from the first tower, which comprises water and the majority of the impurities and any higher boiling oxygenates. A portion of the first stage bottoms stream is injected with a neutralizing stream and returned to an upper portion of the first stage quench tower as a quench pumparound stream.

The Miller process differs from the claimed invention in that Miller does not disclose removing carbon dioxide from the system. Although Miller does add a neutralizing stream to the first quench column, this does not necessarily mean that carbon dioxide removal from the system is enhanced. Not enough details of how this neutralization is performed is given to discern what is really taking place in that column. In any event, it is clear that Miller also does not disclose any steps relating to lowering pH in the quench bottoms tower stream to form a degasified quench bottoms stream. Nor does Miller disclose any process step that could be considered similar to fractionating oxygenate hydrocarbons from the degasified quench bottoms stream. Thus, Miller does not suggest the benefits obtained in applicants' claimed invention.

The noted differences between the Miller process and the claimed process are significant. Accordingly, there is no suggestion by Miller that applicants' claimed process would have been obvious.

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**CONCLUSION**

Having demonstrated that all rejections of claims have been overcome, this application is in condition for allowance. Accordingly, applicants request early and favorable reconsideration in the form of a Notice of Allowance.

If there are any questions regarding this amendment or the application in general, a telephone call to the undersigned would be appreciated, since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response. Please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1712 (Docket #: 2003B064).

Respectfully submitted,

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